

Board of Directors

Finance Committee

June 19, 2019

Electronic Payments

Visa/XM Radio Ad

J.J. Eden

Executive Director



CSC Expansion Discussion



Andy Lelewski, P.E.

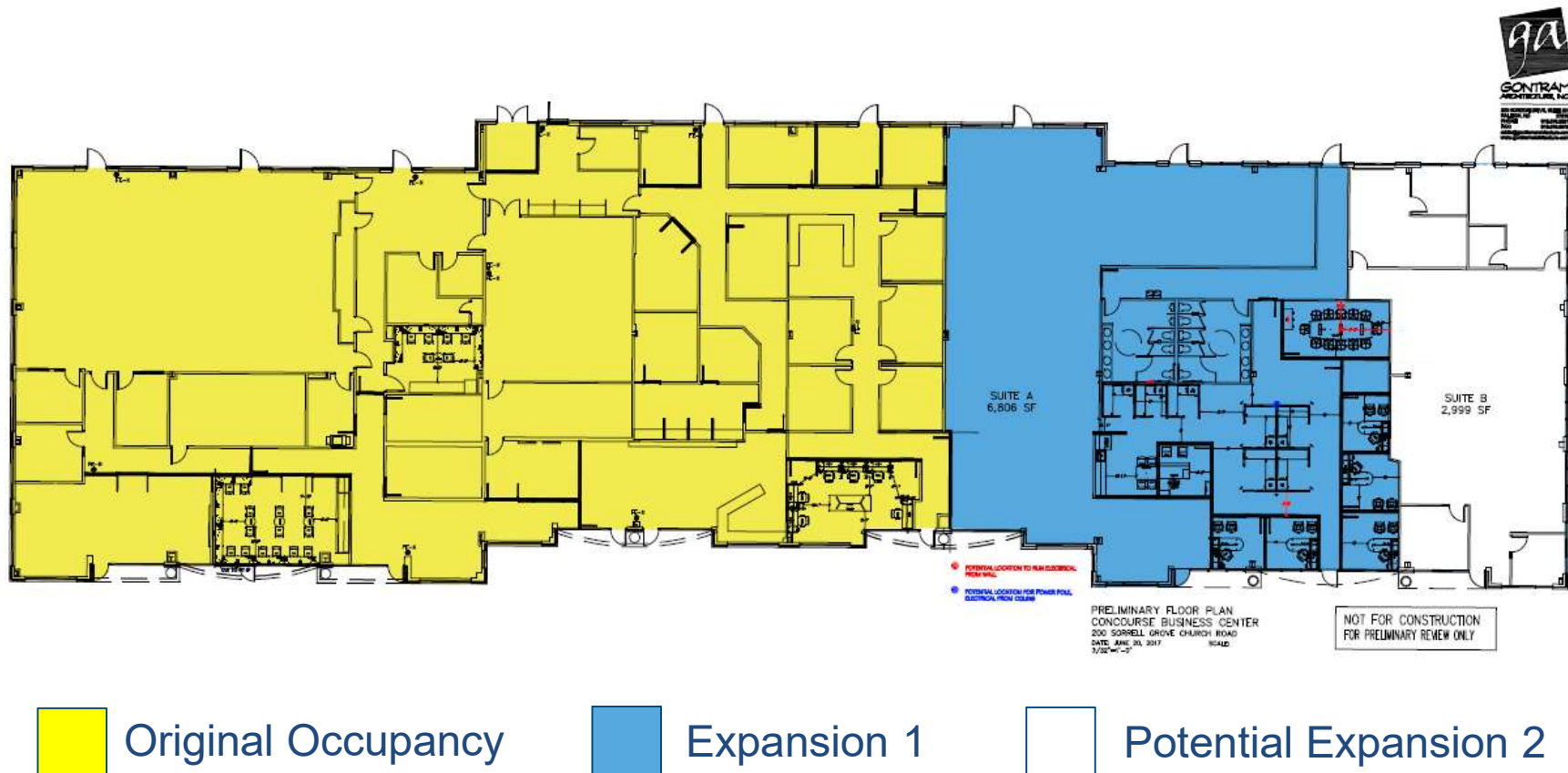
Director of Toll Operations

NC Quick Pass Customer Service Center/Operations Center

- Opened in October 2010
- Total lease space: 14,786 sq. ft.



NC Quick Pass Customer Service Center/Operations Center



NC Quick Pass Customer Service Center/Operations Center

Services Provided

- Operations hub for call center
- Transponder fulfillment
- Mail processing
- Dispute resolution
- License plate image review
- Payments



Expansion 1

Opened April 2018

- Added 6,930 sq. ft.
- Total lease space of 21,716 sq. ft.

	Added	Total
CSR Workstations	85	125
Offices	7	15
Cubicles	7	9
Tag Storage	0	1
Conference Rooms	1	3
Restrooms	1 M, 1 F	2 M, 2 F
Parking Spaces	35	101



Expansion 2 (Potential/Future)

Remaining space available: 2,855 sq. ft.

- Six additional parking spaces

Immediate space needs

- Transponder storage
- NCTA work space

Future potential use

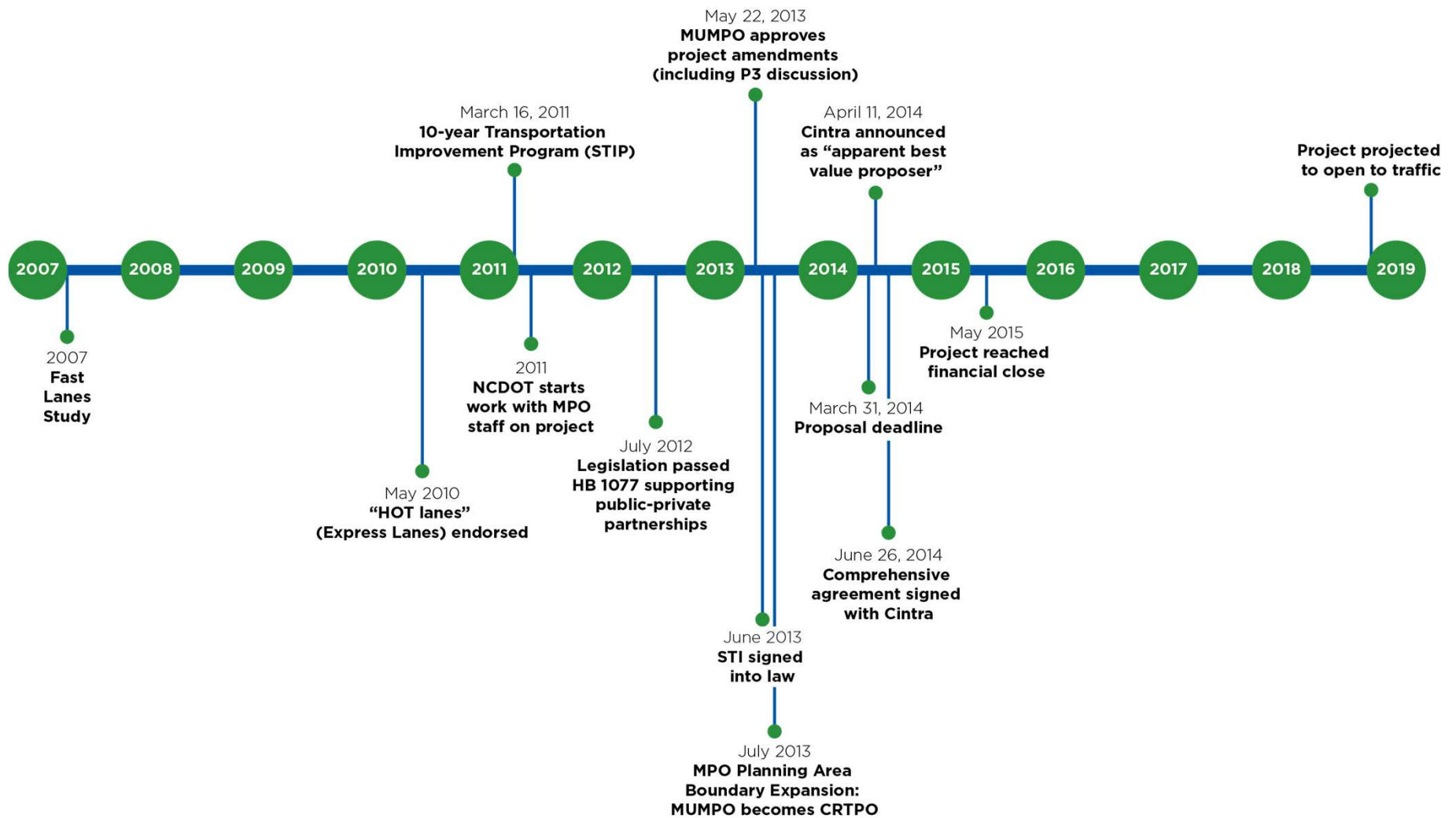
- CSR work stations (up to 32 additional)
- NCTA and/or offices
- Dedicated transponder storage

I-77 Opening Update



Rodger Rochelle, P.E.

Chief Engineer



I-77 Express Lanes



Northern 15 miles of project opened June 1, 2019

Multi-Prong Preparations

Civil

- Joint Inspections
- Punch Lists
- Substantial Completion Checklists and Meetings

Toll Systems

- Roadside Equipment
- End to End Testing
- Back Office Processing
- Customer Service

Operations

- Ordinances and Signing
- MOUs, Enforcement and Training

Driver Perspective Focus

- Uneven pavement between GP and Express Lanes near Exit 28
- Signage, markings and barrel placement complicated northbound express lanes entrance near Hambright Road
- Incomplete camera coverage
- Various duplicative or conflicting pavement markings

Remaining Work in North

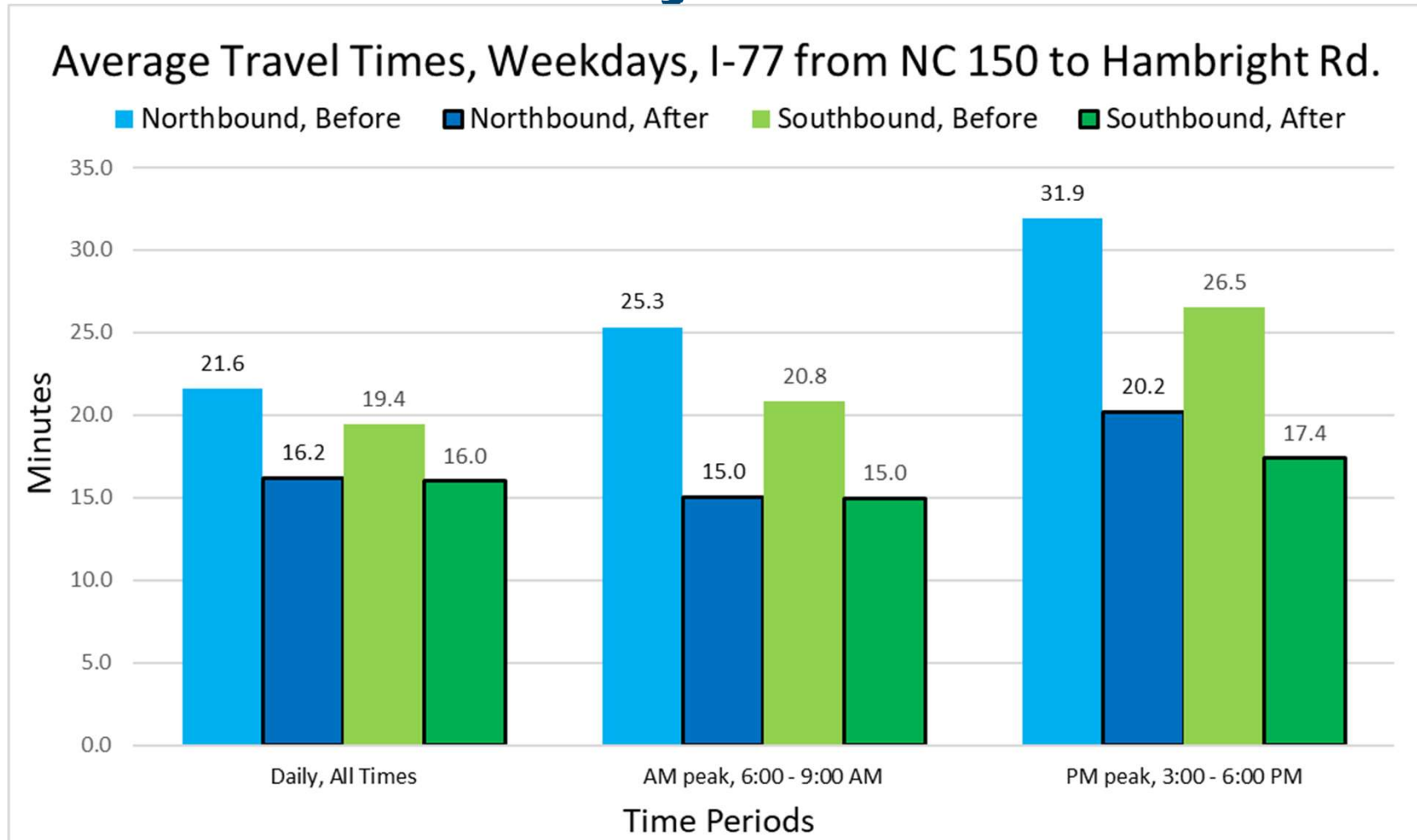
- Continued general purpose lane rehabilitation and overlays
 - Changes in pavement elevation will shift and improve as work progresses
 - Night time lane closures
 - If work requires the closure of both general purpose lanes, traffic will be shifted to express lanes and no tolls will be incurred in that area
- Supplemental ITS equipment
- Griffith Street
- Punch lists

Initial Preliminary Data - Crashes

Crashes (June 1 – 13)

- 16 crashes in database
- 12 in GP lanes, 4 in express lanes
- 15 rear end or lane departure collisions and 1 debris strike
- 15 property damage only

Initial Preliminary Data – Travel Time



- Data from 5/28 - 5/31 and 6/3 – 6/13
- Small sample size; long term inferences should not be made

Initial Data – NC Quick Pass

Transponders (May 29 – June 12)

- Average: 1,649 per day
- High: 3,601 (June 3rd)

I-77 CSC Walk-ins (June 1 – 12)

- Average: 105 per day
- High: 149 (June 3rd)

Call Volume (May 29 – June 12)

- Average: 1,834 per day
- High: 2,784 (June 3rd)

HOV App Downloads

- Roughly 150 – 250 per day for first four days



Next Six Months

- Completion of the Southern portion of project, most notably between I-277 and I-85



Next Six Months

Tolling in schedule mode (30 minute periods)

Potential Amendment to the CA

- Allowance for medium size trucks, work trailers, etc.
- Greater transparency on maximum toll rates for given period
- Allowance for frequent user discount program
- No cost amendment

Peak Period Shoulder Lanes

- 11 segments being analyzed
- Implementation will be prioritized by value and subject to availability of funds
- Funding option to be determined in concert with CRTPO

HOV Account

- Clarification regarding appropriate usage
- Enhanced customer service regarding account selection

Morrisville Parkway Interchange Toll Rates



David Roy

Director of Finance & Budget

Morrisville Parkway Interchange

Construction Start:

- January 2018

Project Construction Cost:

- ~\$15.2 million

Projected to Open to Traffic:

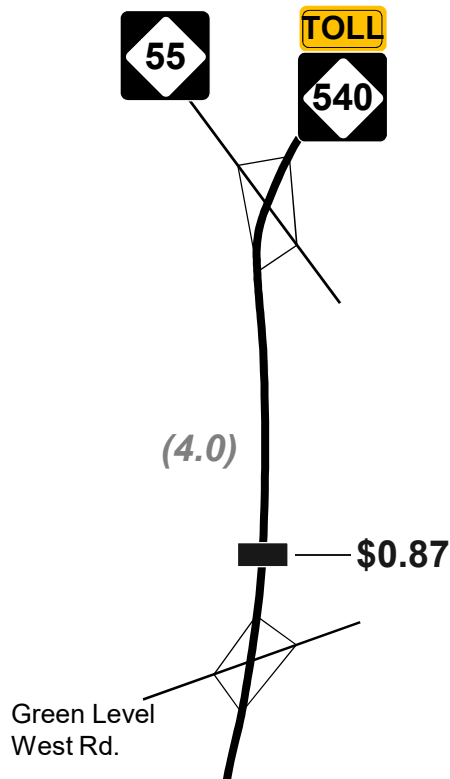
- Late 2019 – Early 2020



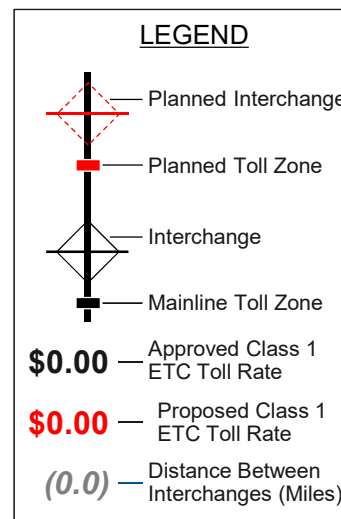
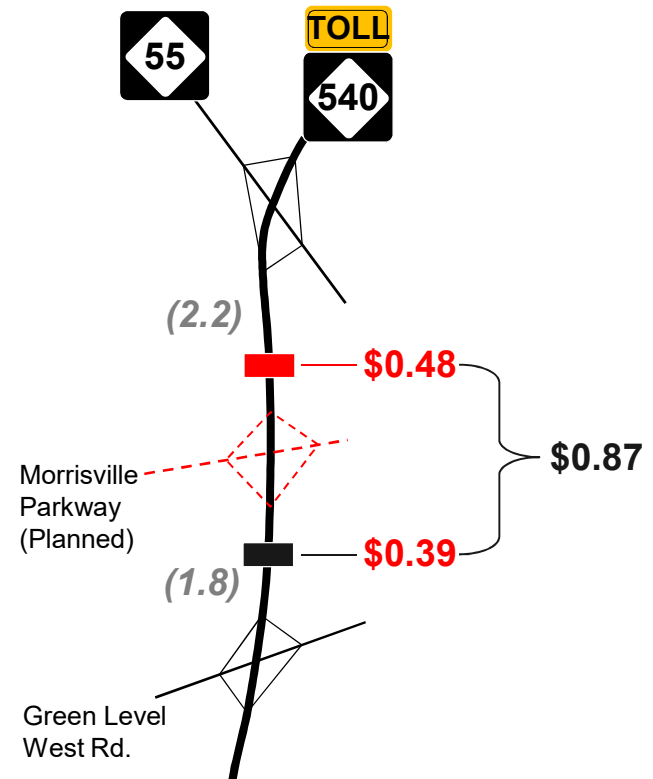
2020 Toll Rates for Mainline Toll Zones

Morrisville Parkway and Green Level West Road

Approved Toll Rate



Proposed Toll Rates



Morrisville Parkway Interchange

Toll Schedule Changes

- Proposed toll rates are consistent with current Triangle Expressway tolling conventions
- New interchange and new toll zones will not affect current rate schedule for existing toll zones
- The cost of travel will not change for motorists traveling between NC 55 and Green Level Road West.
- These toll rates are consistent with rates in the 2018 Triangle Expressway Traffic and Revenue Study used for bond refinancing
- Proposed rates will not negatively affect toll revenue on the Triangle Expressway

Calendar Year (1)	Mainline Section between NC 55 and Morrisville Parkway (2.2 miles)						Mainline Section between Morrisville Parkway and Green Level West Road (1.8 miles)					
	Class 1 (two axles)		Class 2 (three axles)		Class 4 (four or more axles)		Class 1 (two axles)		Class 2 (three axles)		Class 4 (four or more axles)	
	ETC		ETC		ETC		ETC		ETC		ETC	
	ETC	BBM	ETC	BBM	ETC	BBM	ETC	BBM	ETC	BBM	ETC	BBM
2020	0.48	0.73	0.96	1.46	1.92	2.92	0.39	0.60	1.92	2.92	7.68	11.68
2021	0.49	0.76	0.98	1.52	1.96	3.04	0.41	0.63	1.96	3.04	7.84	12.16
2022	0.51	0.78	1.02	1.56	2.04	3.12	0.42	0.65	2.04	3.12	8.16	12.48
2023	0.52	0.80	1.04	1.60	2.08	3.20	0.43	0.66	2.08	3.20	8.32	12.80
2024	0.54	0.83	1.08	1.66	2.16	3.32	0.45	0.69	2.16	3.32	8.64	13.28
2025	0.55	0.85	1.10	1.70	2.20	3.40	0.46	0.71	2.20	3.40	8.80	13.60
2026	0.57	0.88	1.14	1.76	2.28	3.52	0.47	0.72	2.28	3.52	9.12	14.08
2027	0.59	0.90	1.18	1.80	2.36	3.60	0.49	0.75	2.36	3.60	9.44	14.40
2028	0.61	0.93	1.22	1.86	2.44	3.72	0.50	0.77	2.44	3.72	9.76	14.88
2029	0.62	0.96	1.24	1.92	2.48	3.84	0.52	0.80	2.48	3.84	9.92	15.36
2030	0.64	0.99	1.28	1.98	2.56	3.96	0.53	0.82	2.56	3.96	10.24	15.84
2031	0.66	1.01	1.32	2.02	2.64	4.04	0.55	0.85	2.64	4.04	10.56	16.16
2032	0.68	1.05	1.36	2.10	2.72	4.20	0.57	0.88	2.72	4.20	10.88	16.80
2033	0.70	1.07	1.40	2.14	2.80	4.28	0.58	0.89	2.80	4.28	11.20	17.12
2034	0.72	1.11	1.44	2.22	2.88	4.44	0.60	0.92	2.88	4.44	11.52	17.76
2035	0.74	1.14	1.48	2.28	2.96	4.56	0.62	0.95	2.96	4.56	11.84	18.24
2036	0.76	1.17	1.52	2.34	3.04	4.68	0.63	0.97	3.04	4.68	12.16	18.72
2037	0.77	1.19	1.54	2.38	3.08	4.76	0.65	1.00	3.08	4.76	12.32	19.04
2038	0.79	1.22	1.58	2.44	3.16	4.88	0.66	1.02	3.16	4.88	12.64	19.52
2039	0.80	1.23	1.60	2.46	3.20	4.92	0.68	1.05	3.20	4.92	12.80	19.68
2040	0.82	1.26	1.64	2.52	3.28	5.04	0.69	1.06	3.28	5.04	13.12	20.16
2041	0.84	1.29	1.68	2.58	3.36	5.16	0.70	1.08	3.36	5.16	13.44	20.64
2042	0.86	1.32	1.72	2.64	3.44	5.28	0.71	1.09	3.44	5.28	13.76	21.12
2043	0.87	1.34	1.74	2.68	3.48	5.36	0.74	1.14	3.48	5.36	13.92	21.44
2044	0.89	1.37	1.78	2.74	3.56	5.48	0.75	1.16	3.56	5.48	14.24	21.92
2045	0.91	1.40	1.82	2.80	3.64	5.60	0.76	1.17	3.64	5.60	14.56	22.40
2046	0.93	1.43	1.86	2.86	3.72	5.72	0.77	1.19	3.72	5.72	14.88	22.88
2047	0.95	1.46	1.90	2.92	3.80	5.84	0.79	1.22	3.80	5.84	15.20	23.36
2048	0.97	1.49	1.94	2.98	3.88	5.96	0.80	1.23	3.88	5.96	15.52	23.84
2049	0.99	1.52	1.98	3.04	3.96	6.08	0.82	1.26	3.96	6.08	15.84	24.32
2050	1.00	1.54	2.00	3.08	4.00	6.16	0.84	1.29	4.00	6.16	16.00	24.64
2051	1.02	1.57	2.04	3.14	4.08	6.28	0.86	1.32	4.08	6.28	16.32	25.12
2052	1.04	1.60	2.08	3.20	4.16	6.40	0.87	1.34	4.16	6.40	16.64	25.60
2053	1.06	1.63	2.12	3.26	4.24	6.52	0.89	1.37	4.24	6.52	16.96	26.08
2054	1.08	1.66	2.16	3.32	4.32	6.64	0.91	1.40	4.32	6.64	17.28	26.56
2055	1.10	1.69	2.20	3.38	4.40	6.76	0.93	1.43	4.40	6.76	17.60	27.04
2056	1.13	1.74	2.26	3.48	4.52	6.96	0.94	1.45	4.52	6.96	18.08	27.84
2057	1.15	1.77	2.30	3.54	4.60	7.08	0.96	1.48	4.60	7.08	18.40	28.32
2058	1.17	1.80	2.34	3.60	4.68	7.20	0.99	1.52	4.68	7.20	18.72	28.80

Complete 540 Finance Update



David Roy

Director of Finance & Budget

Plan of Finance

Complete 540 Funding Sources:

- \$569 million TIFIA BANs / Loan for the Complete 540 project
- \$596 million Senior Lien Toll Revenue Bonds
- \$243 million NCDOT GARVEE Bonds
- \$81 million NCDOT GARVEE State Match
- \$81 million NCDOT National Highway Performance Program
 - Currently available per STIP but not anticipated to be needed

Financing Assumptions

Toll Revenue Bonds

- Interest Rate: AAA MMD (6/3/2019) + BBB Revenue Bond credit spreads + 75 bps cushion
- Common DSRF funded to 50% of the standard lesser of three test
- Gross pledge on parity with Series 2009 and Series 2017 Toll Revenue Bonds

TIFIA

- Interest Rate: 3.31% (TIFIA Rate as of 6/3/2019 + 75 bps cushion)
- DSRF funded to 50% of the standard lesser of three test (same as senior lien bond requirement)

General Reserve

- Common with the existing Triangle Expressway
- Minimum Balance Target: \$50 million

Financial Covenants

Rate Covenant

- 1.30x Senior Lien Debt service
- 1.10x Senior, Subordinate and TIFIA debt service
- TIFIA Loan Life Coverage Ratio TBD

Additional Bonds Test

- Rate Covenant compliance
- Projected debt service coverage ratios of at least:
 - 1.40x Senior Lien debt service
 - 1.30x Senior, Subordinate and TIFIA debt service for the issuance of senior lien debt
 - 1.20x Senior, Subordinate and TIFIA debt service for the issuance of subordinate lien debt
 - TIFIA Loan Life Coverage Ratio TBD

Sources and Uses

Sources

TIFIA Loan / TIFIA BANS	569,107,108
Toll Revenue Bonds	596,625,789
General Reserve Contribution	19,366,249
NCDOT GARVEE / State Match	324,000,000
Construction Fund Earnings	17,942,818
Total Sources	1,527,041,964

Uses

Construction Cost	1,295,440,618
Debt Service Reserve Funds	28,177,397
Costs of Issuance / UW Discount	8,677,100
Capitalized Interest Cost	194,746,851
Total Uses	1,527,041,964

Projected Coverage Ratios

Senior Lien Toll Revenue Bonds

- 1.68x Minimum
- 3.13x Average (through 2055)

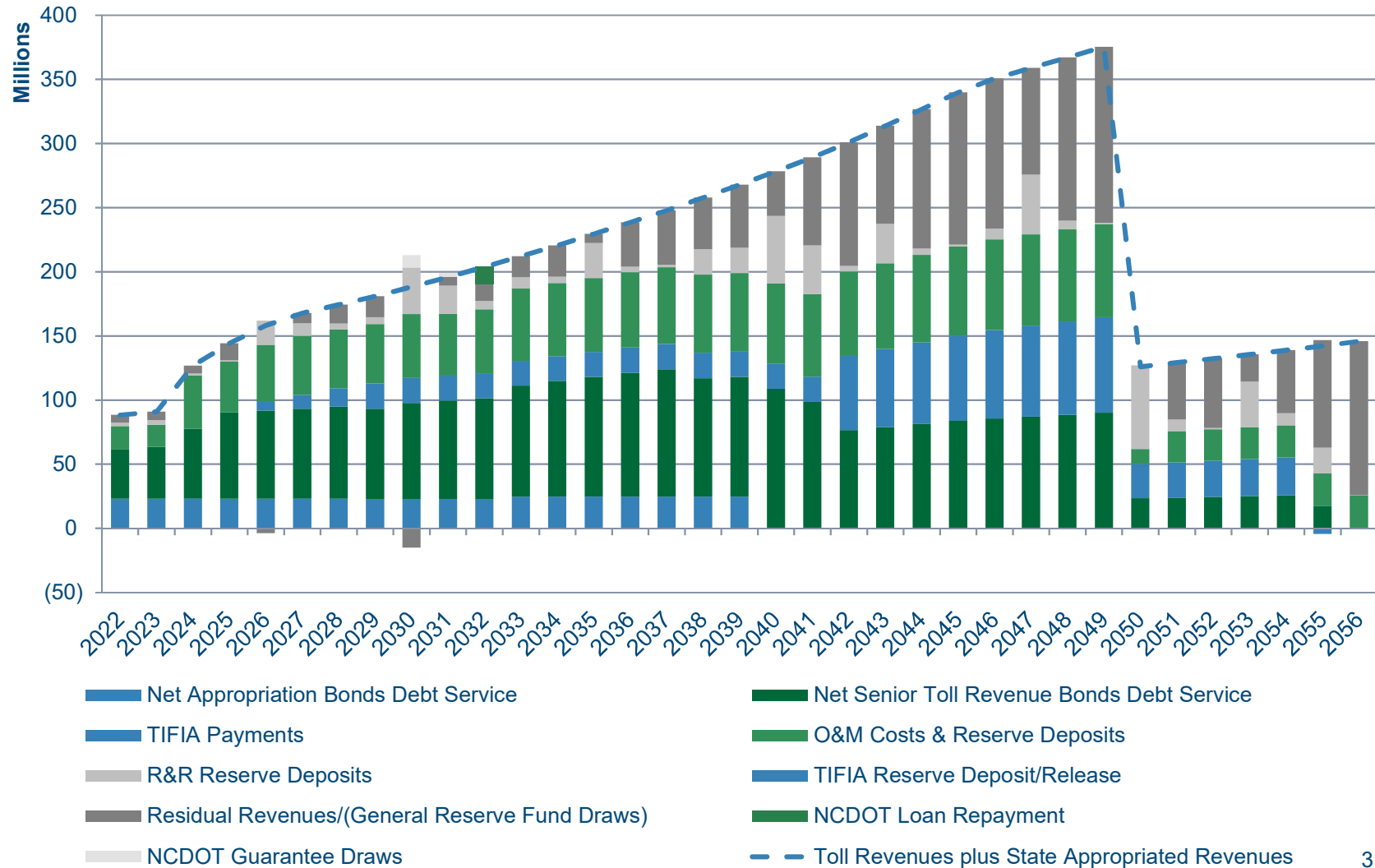
TIFIA Loan

- 1.68x Minimum
- 2.13x Average (through 2055)

All-In

- 0.93x Minimum (shortfalls paid from General Reserve or NCDOT guarantee)
- 1.20x Average (through 2055)

Projected Cash Flows



TIFIA Update



Invited into
Creditworthiness in
January



Responded to initial
due diligence
questions



Attended the sponsor
presentation and work
group session at
USDOT in February

TIFIA BANs Overview

NCTA is considering TIFIA BANs to be issued at or after TIFIA commercial closing in an amount equal to the TIFIA loan.

TIFIA Bond Anticipation Notes are frequently used for the following reasons:

- To avoid complications with multiple TIFIA Loan draws – TIFIA draws are limited to 33% of total costs, pro-rata with actual expenditures
- To defer issuance of other sources of debt – in this case NCDOT's GARVEE Bonds – as TIFIA can only be drawn upon once all funding is in place
- To realize interest cost savings – The interest rate on short term BANs will likely be less than the TIFIA Loan rate which is set based on the 30-Year Treasury
- Allowable arbitrage earnings – In today's yield curve environment NCTA could earn more on the BANs proceeds until spent on construction than the interest cost of the BANs

Benefits TIFIA Bond Anticipation Notes

Potential interest savings

- Depending on market conditions, for the same amount of funded project costs, the Interim Funding/TIFIA BAN option and the TIFIA Loan option can incur different total interest payments due to the following factors:

	Benchmark Rate	Credit Spreads	Interest Due
TIFIA BAN	Short-term tax exempt	Yes	Accrue on the entire issuance
TIFIA Loan	Long-term taxable	No	Accrue only on drawn amounts

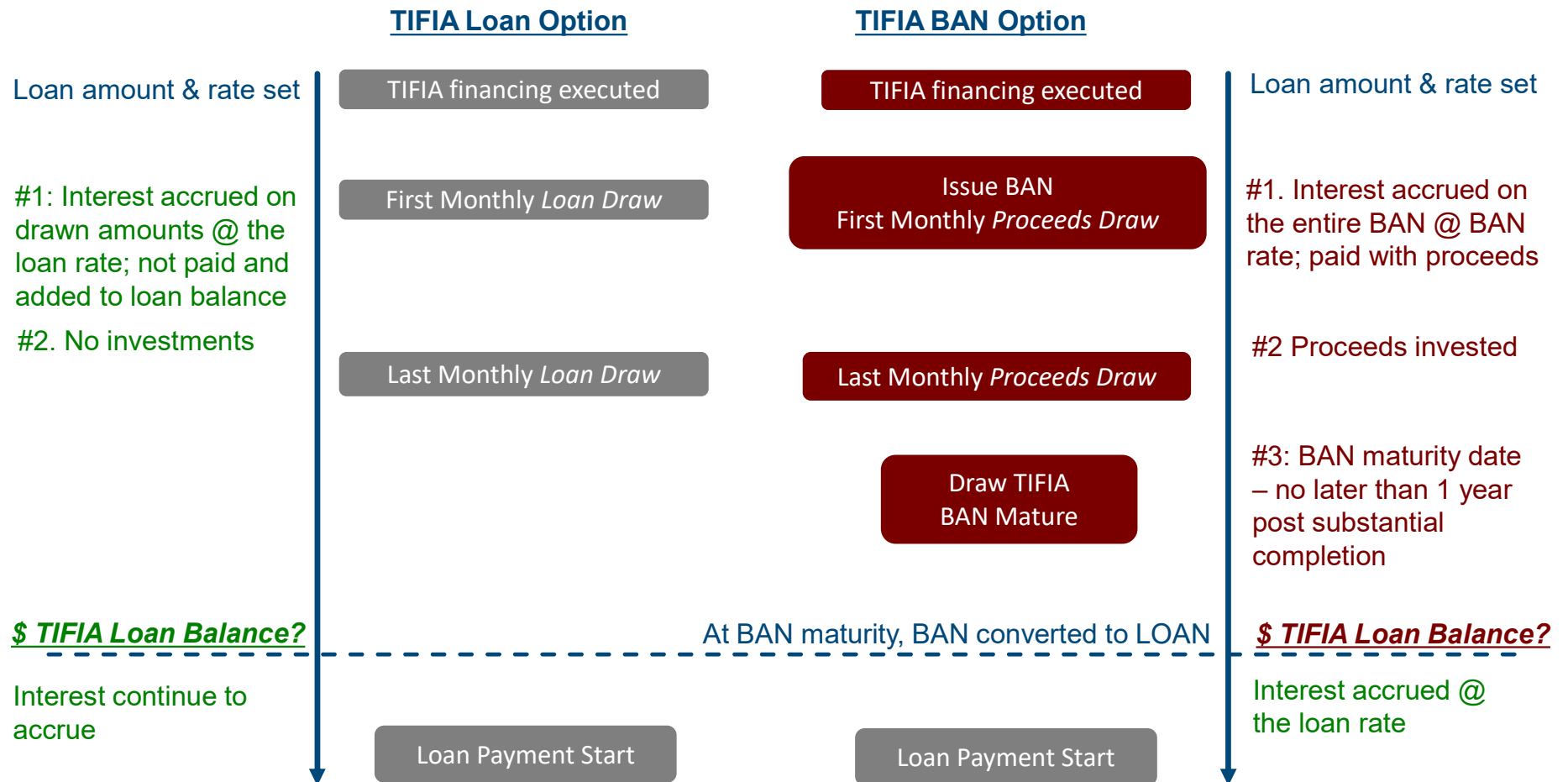
Investment earnings

- Once the BAN is sold and prior to being drawn to pay construction, its proceeds can be invested at or above the arbitrage yield to generate earnings
- The TIFIA loan option will not generate earnings as it is on a draw-as-you-go basis.

Administrative procedure

- The TIFIA BAN option reduces NCTA's administrative burdens by drawing the loan once at BAN maturity vs. monthly as construction progresses.

TIFIA Loan Financing vs. TIFIA BAN Financing



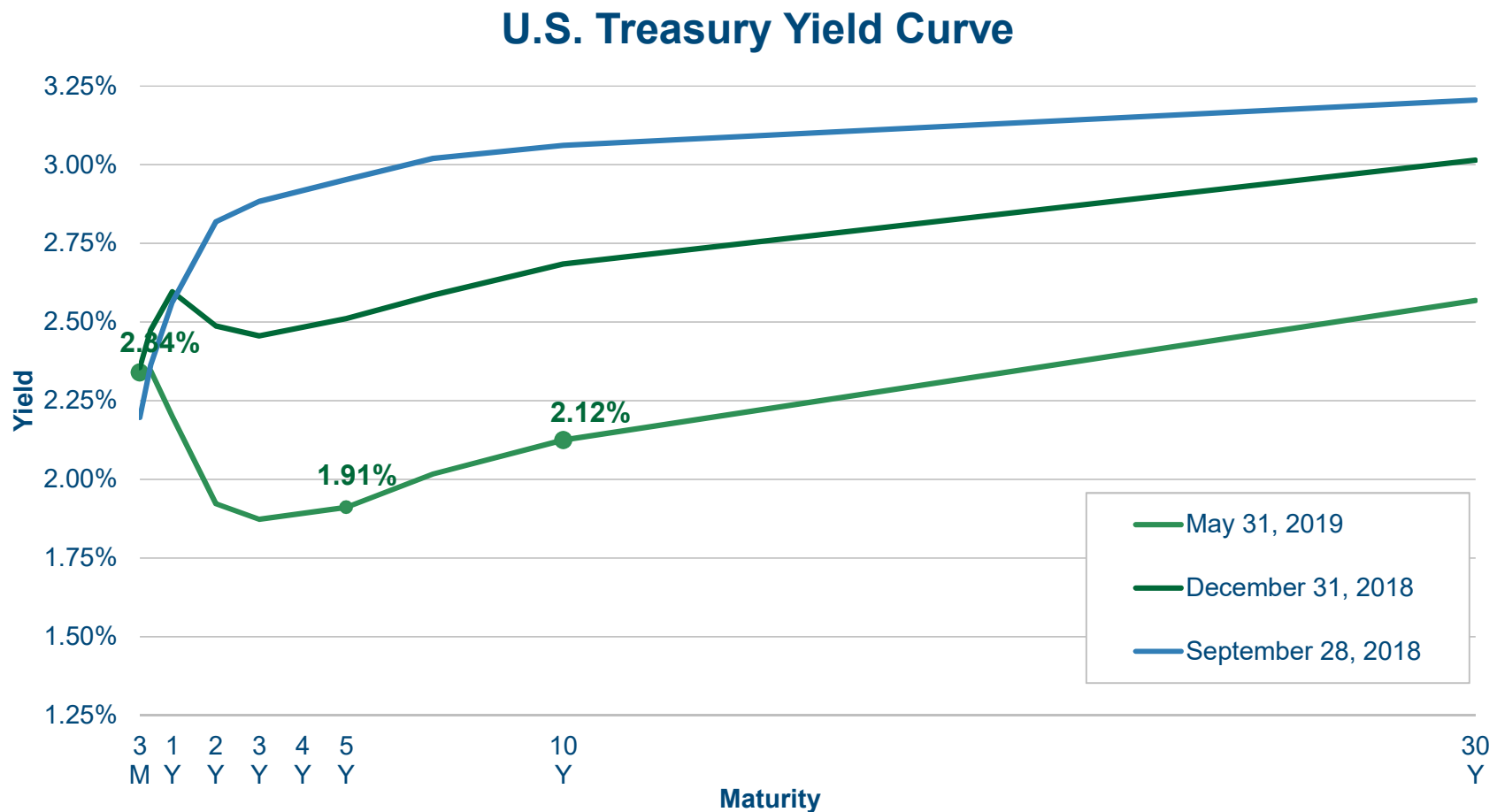
Net Financing Cost Comparisons:

- (1) different TIFIA loan balances at the BAN maturity/total TIFIA payments caused by #1
- (2) Investment earnings: available only with BAN (#2)

Tentative Schedule

Date	Event
June 2019	Draft TIFIA Loan Agreement TIFIA Council on Credit & Finance Review
July 2019	Invitation to submit TIFIA Application Submit TIFIA Application Solicit Credit Ratings NCTA Special Board Meeting to Approve TIFIA Council on Credit & Finance Approval
August 2019	Receive Final Credit Ratings LGC Meeting to Consider Financing Pending Approvals, Finalize & Post POS Investor Marketing
September 2019	Bond Pricing
October 2019	TIFIA Loan Closing / Bond Closing

U.S. Treasury Yield Curve Remains Partially Inverted



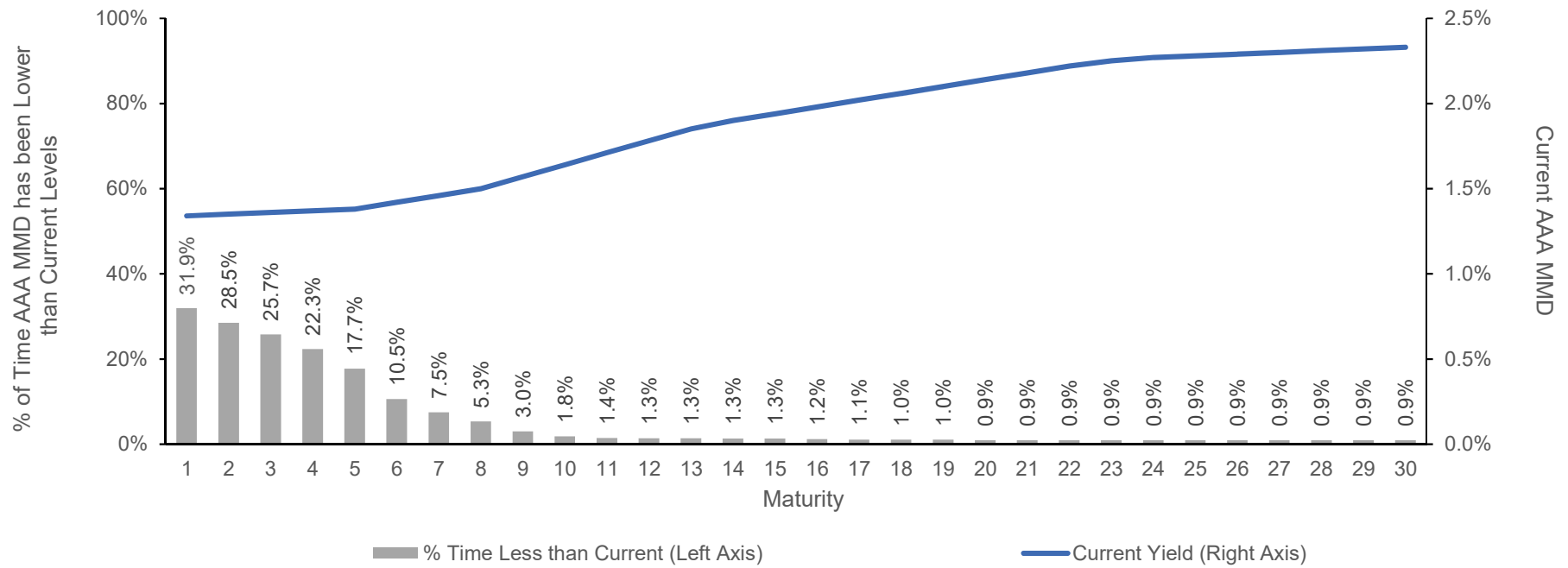
Source: Bloomberg, as of 4/30/19.

Market Interest Rate Movements

The graph below compares current AAA MMD rates to rates since 1986. Interest rates have been lower less than 1% of the time on the long end of the curve.

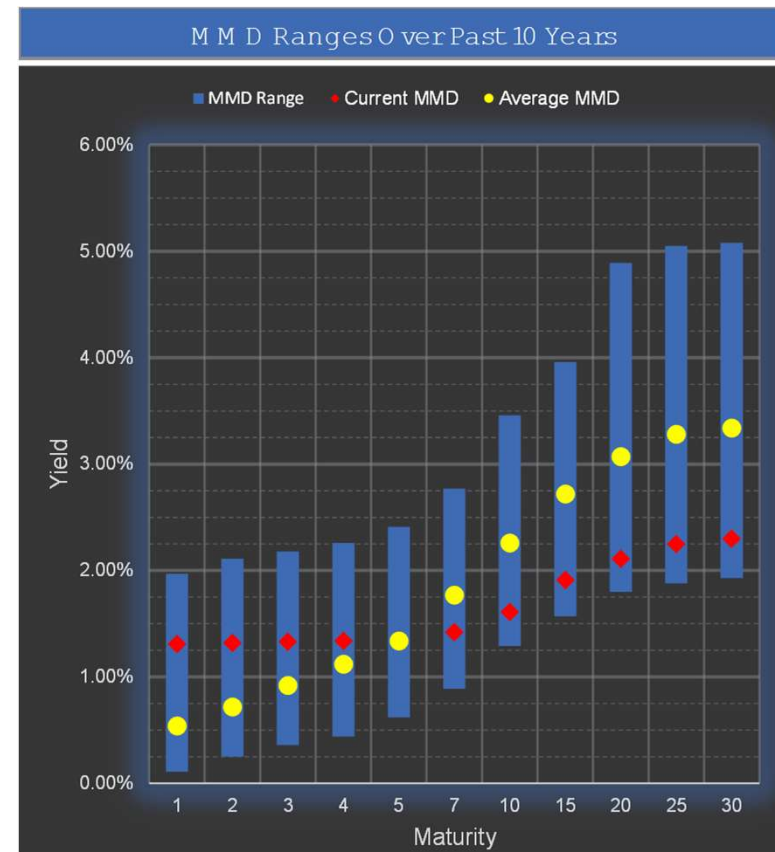
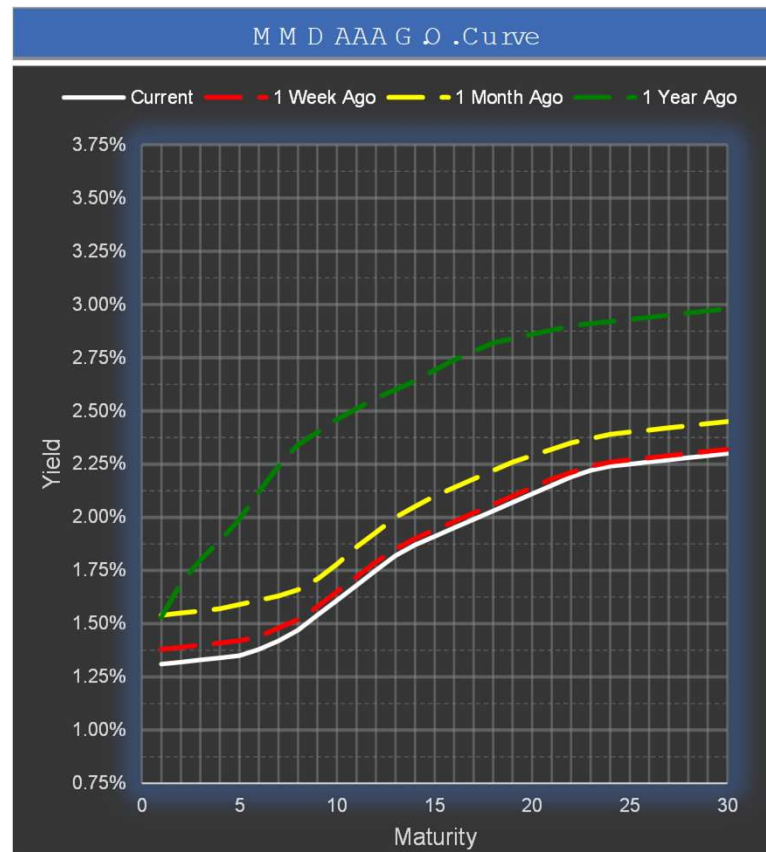
% Of Time AAA MMD Has Been Lower Since 1986 (Left Axis)

06/05/2019 AAA MMD Curve (Right Axis)



Source: Refinitiv (formerly Thomson-Reuters)

Market Interest Rate Movements



Spot Rates				
	Current	1 Week Ago	1 Month Ago	1 Year Ago
2-Year	1.32%	1.39%	1.55%	1.69%
5-Year	1.35%	1.42%	1.59%	1.99%
7-Year	1.42%	1.48%	1.63%	2.24%
10-Year	1.61%	1.65%	1.78%	2.46%
30-Year	2.30%	2.32%	2.45%	2.98%

MMD Ranges Over Past 10 Years					
	Current	10yr Avg	vs. 10yr Avg	Min	Max
2-Year	1.32%	0.72%	60 bps	0.25%	2.11%
5-Year	1.35%	1.34%	1 bps	0.62%	2.41%
7-Year	1.42%	1.77%	-35 bps	0.89%	2.77%
10-Year	1.61%	2.26%	-65 bps	1.29%	3.46%
30-Year	2.30%	3.34%	-104 bps	1.93%	5.08%

Source: Thomson Reuters

Thank You!

